

IN THE CLAIMS:

Please amend the Claims so as to read as follows:

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1. (Currently Amended) A lens comprising:
a curved surface having a function as a lens,
a plane surface disposed in a virtually perpendicular direction
to an optical axis, and
a reflecting part which is disposed on said plane surface, that
reflects light within a predetermined waveband with reflectivity
higher than said curved surface, and transmits light outside the
waveband.
2. (As Originally Filed) The lens as defined as claim 1, wherein said
reflecting part is formed so as to cover said plane surface and said
curved surface.
3. (As Originally Filed) The lens as defined in claim 1, wherein said
reflecting part includes at least one dielectric film.
4. (As Originally Filed) The lens as defined in claim 1, wherein said
reflecting part includes at least one of an MgF₂ film, a TiO₂ film,
and an SiO₂ film.

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5. (As Originally Filed) The lens as defined in claim 1, wherein said reflecting part includes an aluminum film and a dielectric film which is provided thereon.
6. (As Originally Filed) A lens comprising a plane surface whose normal direction virtually conforms to an optical axis direction, said plane surface being provided with a reflecting part for reflecting only light within a predetermined waveband.
7. (As Originally Filed) The lens as defined in claim 6, wherein said plane surface is formed at a circumference of said lens, and said reflecting part is formed on a surface of a lens functioning section as well as on said plane surface, said lens functioning section acting as a lens at an inner radius of said plane surface.
8. Cancelled, without prejudice
9. (Currently Amended) An optical pickup device comprising a lens including:
a curved surface having a function as a lens,
a plane surface disposed in a virtually perpendicular direction to an optical axis, and
a reflecting part which is disposed on said plane surface, that reflects light within a predetermined waveband with reflectivity higher than said curved surface, and transmits light outside the waveband.

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10. (Currently Amended) An optical pickup device comprising:

a plurality of lenses disposed in along an optical axis direction with predetermined intervals, one direction along said optical axis being a forward direction and the other direction along said optical axis being a backward direction,

assuming that a receiving side for inclination detection light is a front side, each of said plurality of lens (a) being provided with larger in diameter than the lenses disposed backwardly along said optical axis relative thereto, and (b) having a plane surface on a front facing surface thereof that faces in said forward direction, said plane surface being disposed in a virtually perpendicular direction to an said optical axis and being capable of reflecting light entering from a front side thereof, a plurality of said lenses each being larger in diameter than a preceding lens.

11. (As Originally Filed) The optical pickup device as defined in

claim 10, wherein each said lens includes a curved surface having a function as a lens, and

at least one of said lenses includes a reflecting part on said plane surface, said reflecting part reflecting light within a predetermined waveband with reflectivity higher than said curved surface.

12. (As Originally Filed) The optical pickup device as defined in

claim 11, wherein each said lens includes said reflecting part, and a wavelength differs between lenses regarding light reflected on said reflecting part of each said lens.

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13. (Currently Amended) The optical pickup device as defined in claim 10, wherein said a reflecting part is formed on at least one of said lenses such that each said lens is equal in quantity of light reflected thereon for detecting inclination.

14. (As Originally Filed) The optical pickup device as defined in claim 13, wherein said reflecting part is formed on said plane surface of each said lens, and said reflecting part has a thickness such that each said lens is equal in quantity of light reflected thereon for detecting inclination.

15. (As Originally Filed) The optical pickup device as defined in claim 13, wherein said reflecting part is formed on said plane surface of each said lens, and said reflecting part has an area such that each said lens is equal in quantity of light reflected thereon for detecting inclination.

16. (Currently Amended) An optical pickup device, which emits a light beam condensed by combined lenses to an optical recording medium, wherein a plurality of lenses constituting the combined lenses each have a plane surface on a surface thereof that faces an optical recording medium at a circumference of said lens, said plane surface (a) having a normal direction virtually conforming to an optical axis, and (b) being capable of reflecting light that enters into the surface that faces said optical recording medium,

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wherein a reflecting part is formed on at least said plane surface of one or more of a said plurality of said lenses, said reflecting part increasing reflectivity of at least specific light received from the optical recording medium, and
assuming that wherein said lenses of said
plurality of lenses successively increase in outer
diameter from a smallest diameter closest to said
optical recording medium to a largest diameter
furthest from said optical recording medium a side
facing the optical recording medium is a front side,
each said lens is larger in outer diameter than a
preceding lens.

17. (Currently Amended) The optical pickup device as defined in claim 16, wherein a front lens of said plurality of lenses is a planoconvex lens including a plane surface at a front and a convex surface at a rear, and said reflecting part is formed at the circumference of at least one of said plurality of lenses disposed at a second and later from said front side rearwardly of said front lens.

18. (As Originally Filed) The optical pickup device as defined in claim 16, wherein said lenses are provided with said reflecting parts, each part reflecting light within a different waveband.

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19. (As Originally Filed) The optical pickup device as defined in claim 16, wherein said reflecting part is formed such that when parallel light is emitted to said combined lenses from the optical recording medium, each said lens is equal in quantity of light reflected thereon.

20. (Currently Amended) A method for detecting lens inclination, said lens including:

a curved surface having a function as a lens,
a plane surface disposed in a virtually perpendicular direction to an optical axis, and
a reflecting part which is disposed on said plane surface,
that reflects light within a waveband with reflectivity higher than said curved surface, and transmits light outside the waveband,

said method comprising:

a step 'a' of emitting light for detecting inclination to said lens; and
a step 'b' of detecting a position of a condensing spot formed by light reflected from said reflecting part.

21. (Currently Amended) The method for detecting lens inclination as defined in claim 21 20, wherein in the step 'a', the light for detecting inclination is not emitted to said curved surface but only to said plane surface and said reflecting surface.

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22. (As Originally Filed) A method for detecting lens inclination comprising:

a step 'a' of emitting light for detecting inclination to a plurality of lenses so as to emit the light to plane surfaces thereof, said lenses being disposed in an optical axis direction with predetermined intervals, said plane surfaces being disposed in a virtually perpendicular direction to an optical axis,

a step 'b' of detecting a position of a condensing spot formed by light reflected from said plane surface of each said lens.

23. (As Originally Filed) The method for detecting lens inclination as defined in claim 22, wherein in the step 'a', parallel light is used as the light for detecting inclination.

24. (As Originally Filed) The method for detecting lens inclination as defined in claim 22, wherein in the step 'a', light is reflected on a reflecting part provided on said plane surface of at least one of said lenses so as to form a condensing spot, which is larger in quantity of light than that of a spot formed by light reflected on a lens functioning section provided on each said lens, and in the step 'b', the position of the condensing spot is detected.

25. (As Originally Filed) The method for detecting lens inclination as defined in claim 22, wherein in the step 'a', light within a different waveband for each said lens is reflected on a reflecting part provided on said plane surface of each said lens, and light reflected from said reflecting parts are separated from each other.

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26. (As Originally Filed) The method for detecting lens inclination as defined in claim 22, wherein in the step 'a', the light for detecting inclination is emitted to a reflecting part provided on said plane surface of each said lens, and light equal in quantity is reflected on each said reflecting part.

27. (As Originally Filed) The method for detecting lens inclination as defined in claim 22, wherein in the step 'a', the light for detecting inclination is not emitted to a lens functioning part provided on each said lens but only to said plane surface.

28. (Currently Amended) A method for detecting lens inclination, that detects inclination of combined lenses including a plurality of lenses, comprising the steps of:

~~each having a plane surface at least at a circumference thereof, said plane surface having a normal direction virtually conforming to an optical axis direction, said method comprising the step of emitting parallel light to each of said plurality of combined lenses and detecting inclination of said combined lenses based on light reflected therefrom,~~
the plurality of lenses being disposed along an optical axis having a forward direction and a backward direction therealong.

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each of said plurality of lenses (a) being
larger in diameter than the next most forward of said
lenses along said optical axis, and (b) having a plane
surface on a surface thereof, said plane surface
facing forwardly relative to said optical axis, being
virtually perpendicular thereto and being capable of
reflecting light impinging thereon.

29. (As Originally Filed) The method for detecting lens inclination as defined in claim 28, wherein a reflecting part for increasing reflectivity of the parallel light is formed on said plane surface of at least one of said lenses included in said combined lenses, and inclination of said combined lenses is detected based on light reflected from said reflecting part.

30. (As Originally Filed) A method for detecting lens inclination, in which parallel light is emitted to a lens and inclination of the lens is detected based on light reflected therefrom, said lens including a plane surface at least at a circumference thereof, said plane surface having a normal direction virtually conforming to an optical axis direction,
said method comprising the step of, upon detecting inclination, preventing the parallel light from entering a lens functioning section by using a light-shielding member, said lens functioning section acting as a lens at an inner radius of said plane surface.

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31. (New Claim) An optical pickup device comprising:

a plurality of lenses disposed along an optical axis, one direction along said optical axis being a forward direction and the other direction along said optical axis being a backward direction, each of said plurality of lens (a) being larger in diameter than the lenses disposed backwardly along said optical axis relative thereto, and (b) having a plane surface on a surface thereof that faces in said forward direction, said plane surface being disposed virtually perpendicular to said optical axis and being capable of reflecting light entering from a front side thereof,
wherein each said lens includes a curved surface having a function as a lens, and
defines a reflecting part on its plane surface, said reflecting parts of said lenses reflecting light within a predetermined waveband with reflectivity higher than said curved surface, and a wavelength differs between lenses regarding light reflected on said reflecting part of each said lens.

32. (New Claim) An optical pickup device comprising:

a plurality of lenses disposed along an optical axis, one direction along said optical axis being a forward direction and the other direction along said optical axis being a backward direction, each of said plurality of lens (a) being larger in diameter than the lenses disposed backwardly along said optical axis relative thereto, and (b) having a plane surface on a surface thereof that faces in said forward direction, said plane surface being disposed virtually perpendicular to said optical axis and being capable of reflecting light entering from a front side thereof,

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wherein said plane surface defines a reflecting part such that each said lens is equal in quantity of light reflected thereon for detecting inclination

33. (New Claim) An optical pickup device, which emits a light beam condensed by combined lenses to an optical recording medium,

wherein a plurality of lenses constituting the combined lenses each have a plane surface on a surface thereof, that faces an optical recording medium at a circumference of said lens, said plane surface (a) having a normal direction virtually conforming to an optical axis, and (b) being capable of reflecting light that enters into the surface that faces said optical recording medium,

wherein a reflecting part is formed on at least said plane surface of each of said plurality of lenses, each said reflecting part reflecting light within a different waveband so as to increase reflectivity of at least specific light received from the optical recording medium, and

wherein said lenses of said plurality of lenses successively increase in outer diameter from a smallest diameter closest to said optical recording medium to a largest diameter furthest from said optical recording medium.

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34. (New Claim) An optical pickup device, which emits a light beam condensed by combined lenses to an optical recording medium,

wherein a plurality of lenses constituting the combined lenses each have a plane surface on a surface thereof, that faces an optical recording medium at a circumference of said lens, said plane surface (a) having a normal direction virtually conforming to an optical axis, and (b) being capable of reflecting light that enters into the surface that faces said optical recording medium,

wherein a reflecting part is formed on at least said plane surface of one or more of said plurality of lenses, each said reflecting part being formed such that when parallel light is emitted to said combined lenses from the optical recording medium, each said lens is equal in quantity of light reflected thereon so as to increase reflectivity of at least specific light received from the optical recording medium, and

wherein said lenses of said plurality of lenses successively increase in outer diameter from a smallest diameter closest to said optical recording medium to a largest diameter furthest from said optical recording medium.

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35. (New Claim) The optical pickup device as defined in
claim 32, wherein said reflecting part is formed on
said plane surface of each said lens, and
said reflecting part has a thickness such that each
said lens is equal in quantity of light reflected
thereon for detecting inclination.

36. (New Claim) The optical pickup device as defined in
claim 32, wherein said reflecting part is formed on said
plane surface of each said lens, and
said reflecting part has an area such that each said lens
is equal in quantity of light reflected thereon for detecting
inclination.

37. (New Claim) An optical pickup device, comprising:
a plurality of lenses disposed along an optical axis, one direction
along the optical axis being a forward direction and the
other being a backward direction,
each successive backwardly disposed one from a front one of said
plurality of lenses being larger in diameter than the lens
immediately in front of it,
each of said plurality of lenses having (i) a plane surface on a
surface thereof that faces in the forward optical axis
direction, said plane surfaces each being disposed virtually
perpendicular to the optical axis, and (ii) a curved surface
having a function as a lens,
at least one of the plurality of lenses having a reflecting part, and
the reflecting part reflecting light within a predetermined
waveband with reflectivity higher than said curved surface.

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38. (New Claim) The method for detecting lens inclination as set forth in claim 28, wherein:

a reflecting part for increasing reflectivity of parallel light is formed on each plane surface of at least two of said lenses included in said combined lens; each said reflecting part being adapted to increase the reflectivity of light in a different waveband from others of said reflecting parts; and said inclination of said combined lens is detected based on light reflected from said reflecting parts.

39. (New Claim) The method for detecting lens inclination as defined in claim 28, wherein the light for detecting inclination is emitted to a reflecting part provided on said plane surface of each said lens, and light equal in quantity is reflected on each said reflecting part.

40. (New Claim) The method for detecting lens inclination as defined in claim 28, wherein the light for detecting inclination is not emitted to a lens functioning part provided on each said lens but only to said plane surface.